

## **AMENDMENTS TO THE CLAIMS**

Please amend the claims without prejudice, as follows and consider the subsequent remarks/arguments. This listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

Claims 1-3 (canceled)

4. (New) A two-way portable device, comprising:
  - a device body that has a thickness of 1mm or less and a switch;
  - a processing unit for processing instructions and computing data for the operation of the portable device and for generating a device information to be transmitted by the portable device, wherein the processing unit is contained within the device body;
  - a reception unit coupled to the processing unit for receiving data extracted from a physical wireless signal;
  - a transmission unit coupled to the processing unit for transmitting device information;
  - an input/output unit coupled to the transmission unit for generating a physical wireless signal based on the device information for transmission by the portable device upon the activation of the switch and coupled to the reception unit for receiving a plurality of physical wireless signals; and
  - a power and switching unit coupled to and for providing power to the processing unit, the reception unit, the transmission unit, and the input/output unit.
5. (New) The two-way portable device of claim 4, wherein the processing unit further comprises:
  - a microcontroller;

digital signal processing (DSP) logic;  
smartdevice chip; and  
a bus system coupling the microcontroller, DSP logic, and the  
smartdevice chip.

6. (New) The two-way portable device of claim 4, wherein the transmission or reception unit comprises a transducer for converting between the device information and the physical wireless signal.

7. (New) The two-way portable device of claim 6, wherein the transducer includes:

a metal plate; and  
a piezo ceramic material.

8. (New) The two-way portable device of claim 4, wherein the power and switching unit further comprises:

a battery; and  
switch logic for determining when power should be applied to the  
various components of the portable device.

9. (New) A portable device, comprising:

a device body that has a thickness less than 0.8 mm and a switch;  
transmission electronics coupled to the switch that emit a wireless  
signal when the switch is activated for a predetermined time  
duration; and  
mode logic for setting a mode of the portable device, wherein the  
mode is determined by the length of time that the switch is  
activated.

10. (New) A one-way portable device, comprising:

- a device body that has a thickness less than 0.8 mm and a switch;
- memory logic for storing device information; and
- transmission electronics coupled to the switch that emit an acoustic signal based on the device information in accordance with a first data format when the switch is activated, the format comprising:
  - a first frequency shift keying (FSK) portion to identify a first frequency in a FSK signaling scheme;
  - a second frequency shift keying (FSK) portion to identify a second frequency in the FSK signaling scheme;
  - a synchronization portion for facilitating the proper reception of the wireless signal;
  - a known portion that both the portable device and a targeted receiver of the wireless signal knows;
  - a data portion comprising various combinations of the first frequency and the second frequency to represent the device information;
  - and
  - an error checking code portion to allow some targeted receiver to check for errors in the received data.

11. (New) The device of claim 10, wherein the first data format further comprises:

- a first frequency shift keying (FSK) portion to identify a first frequency in a FSK signaling scheme;
- a second frequency shift keying (FSK) portion to identify a second frequency in the FSK signaling scheme;
- a synchronization portion for facilitating the proper reception of the acoustic signal by some target receiver;
- a known portion that both the portable device and some targeted receiver of the acoustic signal know;

a data portion comprising various combinations of the first frequency and the second frequency to represent the device information; and  
an error checking code portion to allow some targeted receiver to check for errors in the received data.

12. (New) An online search system, comprising:  
a portable device including,  
a device body that has a thickness and a switch,  
a processor for processing instructions and computing data,  
reception electronics for receiving and recording sounds or sights, and  
transmission electronics coupled to the switch that emit the recorded sounds or sights when the switch is activated;  
a base station with a receiver and at least one application; and  
a server for receiving the recorded sounds or sights.
13. (New) The system of claim 12, wherein the server further comprises:  
a database including a plurality of audio samples; and  
a search engine for comparing the recorded acoustic signal with a selected plurality of audio samples in the database to find a match.
14. (New) The system of claim 13, wherein the transmission electronics emit the recorded sounds or sights acoustically.
15. (New) A method of facilitating the registration of a portable device for use in an online system, wherein the online system comprises a base station with a receiver and a web browser; and the portable device includes memory containing device ID information, a switch, a processor, and transmission

electronics that emit a wireless signal when the switch is activated,  
comprising steps:

- preparing a personal data file for the user;
- receiving the device information that was transmitted by the portable device via the wireless signal and received by the base station;
- and
- affiliating the device information with the personal data file of the user.

16. (New) An online interactive system for performing challenge-response, comprising:

- a server accessible on a wide area network, wherein the server delivers a digital certificate containing a server public key;
- a portable device including:
  - a device body that has a thickness and a switch;
  - memory for storing device information;
  - a processor for processing instructions and computing data;
  - reception electronics for receiving wireless signals and decoding information therein including the server public key; and
  - transmission electronics coupled to the switch that emit a wireless signal when the switch is activated; and
- a base station with a receiver and at least one application.

17. (New) An interactive client computer system, comprising:

- a portable device including:
  - a device body that has a thickness and a switch;
  - memory for storing device information;
  - a processor for processing instructions and computing data; and
  - transmission electronics coupled to the switch that emit a wireless signal when the switch is activated; and

a base station with a receiver and at least one application, wherein the application includes:  
security logic for checking the authenticity of the portable device by examining the wireless signal and the device information, and  
certificate logic for generating a digital certificate; and  
communications logic for sending the digital certificate and at least a portion of the device information.

18. (New) The system of claim 17, wherein the portable device includes a counter for holding a counter value and the device information includes the counter value, and the security logic further comprises:

counter check logic for storing a last counter value representing the counter value received from the last received wireless signal, and for checking the counter value with the last counter value, and if the counter value is greater than the last counter value, then the wireless signal is presumed valid.

19. (New) An interactive computer system, comprising:

a portable device including:

a device body that has a thickness and a switch;

memory for holding device information;

a processor for processing instructions and computing data; and

transmission electronics coupled to the switch that emit a wireless signal when the switch is activated, wherein the wireless signal includes the device information; and

a base station with a receiver, and a plurality of applications, wherein each application provides a function, wherein the base station selects the function based on the device information.

20. (New) A two-way portable device for information exchange, comprising:

- a device body that has a thickness less than 0.8 mm and a switch;
- memory logic for storing device information;
- reception electronics for receiving wireless signals; and
- transmission electronics coupled to the switch that emit a wireless signal when the switch is activated, wherein the wireless signal includes the device information.

21. (New) The two-way portable device of claim 20, wherein the transmission electronics includes delay logic which selects a time delay, where the transmission electronics transmit the device information after the expiration of the time delay.

22. (New) An interactive computer system, comprising:

- a portable device including,
  - a device body that has a thickness and a switch,
  - memory for holding device information,
  - a processor for processing instructions and computing data, and
  - transmission electronics coupled to the switch that emit a wireless signal when the switch is activated, wherein the wireless signal includes the device information and complies with a communications protocol;
- a server for supporting a website; and
- a base station with a receiver and at least one application, wherein the application is capable of detecting whether the server supports the communication protocol.

23. (New) An online interactive system for use with a portable device, the portable device includes a device body that has a thickness and a switch,

memory for storing device information, a processor for processing instructions and computing data, and transmission electronics coupled to the switch that emit a wireless signal having a first structure when the switch is activated, comprising:

- a base station including a receiver, at least one application, wherein the application includes recording electronics for recording the wireless signal received by the receiver to generate a recorded wireless signal, and communications electronics for delivering the recorded wireless signal; and
- a server including server communications electronics for receiving the recorded wireless signal and a decoder for decoding the recorded wireless signal to extract the device information therein for authenticating the portable device, and further including wireless signal check logic for comparing the first structure with an expected structure, the expected structure stored in the server for comparison.